	W	ork	Order	ID	109710
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Tuesday, November 26, 2013 1:40:16 PM

\*109710\*

Page 1

Insp.

Item ID: D3022-1 Accept \*N900040100\* Setup Start Revision ID: Seat Pan Item Name: Start Qty: 1.00 Start Date: 11/26/2013 **Cust Item ID: Required Date: 12/4/2013** Req'd Qty: 1.00 Customer: Reference: Run Date: (3-11-27 Tooling: Process Plan: W Approvals: Date: A Date: Stop QC: SPC (Y/N): Date: Operation Sequence ID/ Set Up/ Tool ID Tool # Plan Reject Accept Reject Work Center ID Description **Run Hours** Code **Qty** Qty Number Stamp Revision Nbr Draw Nbr D3022 Rev B 0.00 1 e Ac 13.11.27 FLOW WATER JET 0.00 Memo FLOW CNC Waterjet 1-Cut as per Dwg D3022 Dwg Rev: B Prog Rev: 3 \*\*\* grind direction along 31.700" \*\*\* \*\*NO HOLES, TRANSFER DRILLED AT ASSEMBLY\*\*\* 2-Deburr if necessary

QC2- Inspect parts off machine FAI/FAIB

0.00

\*1110\*

Quality Control

Memo

0.00

NCR.	Yes	/	Nο

### **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA:	Date:	

											QA Close	d: Da	ate:	
Work Orde	er:		·			DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part N	•					Rework Scrap		Skid-tube Crosstube Machining Small Fab			Water Jet Prod. Eng. Coor.			Engineering Quality
NCR N	10.					Use-as-is Work Order Update			noforming Large Fab	Finishing _ Composite _	Rec/St	ore/Packaging Supplie	-	Other
Root					Descri	ption of work order update	ı	nitial	Ac	tion	Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	on	QC Inspector
Doc/Data														
Equip/Tooling								İ						
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Material														'
Setup								į						:
Other							1					·		į
Process							l							
Supplier								ļ			İ			
Training														
Unapproved							<u> </u>							
						F	AUL	T CATE	GORY					
Landi	ng (	Gear				General		_		_				_
		Bending				Bend		Grain			Ovalized			Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Und	er tolerance		Temperature/Cure
İ		Cracks				Broken/Damaged		Inspecti	ion Incomplete		Part Incor	rect		Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/	/Unclear	Part Lost/	Missing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance		Part Move	d		
		Heat Trea	it			Countersink		] Mislabe	eled		Positioned	l Wrong		_
1	Inspection Strip in Tube			Cut Too Short		Misread	Ė		Power Los	s/Surge		Other		
					Drill Holes		Offset		_					
		Torque W	/aves in E	Extrusio	n 🗌	Drawing	Out of Calibration							
	Turning Sequence Finish				Finish		Out of !	Sequence						
		Wave/Twist in Tube				Folio		Outside	Dimensions					

# \*109710\*

Work Order ID 109710

Quality Control

Tuesday, November 26, 2013 1:40:16 PM D3022-1 Item ID: Accept \*N900040100\* Setup Start Revision ID: Item Name: Seat Pan 11/26/2013 **Start Date:** Start Qty: 1.00 **Cust Item ID:** Required Date: 12/4/2013 Req'd Qty: 1.00 \*1\* **Customer:** Reference: Run **Process Plan:** Approvals: Tooling: Date: Date: Stop QC: SPC (Y/N): Date: Date: Sequence ID/ Tool # **Operation** Tool ID Reject Set Up/ Plan Accept Reject Insp. Work Center ID Description **Run Hours** Code Qty **Qty** Number Stamp 120 + QC8- Inspect parts - second check \*120\* Memo Quality Control 130 Bend as per dwg 0.00 DAS \*130\* 30 Brake NC 0.00 Memo 9-89 Brake NC DAS QC5- Inspect part completeness to step on W/O 0.00 27 \*110\* 9-89 QC 0.00 Memo

		DQA:	Date:	
NCR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			

										QA Closed:	Dat	e:	
Work Orde	r:				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No					Rework Scrap Use-as-is Work Order Update	] ] ] ]	Skid-tube Crosstube Machining Small Fal Thermoforming Finishing Large Fab Composite			Pro Rec/Stor	Engineering Quality Other		
Root				Descr	iption of work order update	Initia	Initial Action			Sign &			
Cause	Date Step Qty or Non-conformance				·	Chief	Eng	Description		Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup													
Other													
Process							İ						
Supplier		1											
Training													
Unapproved													
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Landir	ng Gear			_	General	_				ı	,		
	Bending Centre N	ot Conce	ntric to	o/s	Bend BOM/Route	$\vdash$	dware			Ovalized Over/Under	<b>,</b>	Pressure/Forced Temperature/Cure	
}	Cracks	10 i 1		-	Broken/Damaged	<b>—</b>	pection incomple		-	Part Incorred	}	Weld	
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		Cuffs			Contamination   Countersink	<b>├</b>	slabeled			Positioned V	Vrong		
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	Inspection Strip in Tube Cut Too Short				Drill Holes	Off			L	1 00001 1033/	Juige	Louisi	
}	Ripples in Bend Drill Holes Torque Waves in Extrusion Drawing				Out of Calibration								
				"   <del> </del>	Finish	Out of Sequence							
	Turning Sequence Finish Wave/Twist in Tube Folio					$\vdash$	tside Dimensions	S				······································	

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

\*109710\*

Page 3

Item ID:

D3022-1

Accept

\*N900040100\*

Setup Start

Revision ID:

Item Name: Start Date:

Seat Pan

QC:

Tuesday, November 26, 2013 1:40:16 PM

11/26/2013

Start Qty: 1.00 Req'd Oty: 1.00

\*1\*

**Cust Item ID:** 

**Customer:** 

Reference:

**Approvals:** 

Required Date: 12/4/2013

**Process Plan:** 

Date: Date: **Tooling:** 

SPC (Y/N):

Tool ID

Date:

Run

Date:

Stop

Work Center ID 200

Operation Description

Identify as per dwg & Stock Location:

Set Up/ **Run Hours** 

Tool # Plan Code

Accept Qty

Reject Reject Qty Number

Insp. Stamp

\*200\*

Sequence ID/

Packaging Packaging

Memo

0.00

0.00

13-11-95 10

210

QC Quality Control QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

Rm 13/11/29.

NCR:	Yes / No	WORK ORDER NO

### **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

							•		QA Closed:	Date:	
Work Order					DISPOSITION		** ** **	AGAINST DE	PARTMENT	PROCESS	
Part No					Rework Scrap Use-as-is		Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing		Water Jet Prod. Eng. Coor. Rec/Store/Packaging		Engineering Quality Other
NCR No.					Work Order Update		Large Fab	Composite	Rec/Stol	Supplier	Other
Root				Descri	ption of work order update	Initia	l Ac	tion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief E	ng Desc	ription	Date	Verification	QC Inspector
oc/Data											
quip/Tooling											
perator											
/laterial											
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Other											
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upplier											
raining											
Jnapproved							<u> </u>				
					F	<b>AULT CA</b>	TEGORY				
Landing	g Gear				General		•		_		_
	Bending				Bend	Grai	n		Ovalized		Pressure/Forced
	Centre No	ot Conce	ntric to (	o/s	BOM/Route	Hard	lware		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Insp	ection Incomplete		Part Incorred	ct	Weld
	Crushed/	Crimped			Burrs	instr	uctions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	Mai	ntenance	<u> </u>	Part Moved		
	Heat Treat				Countersink	Misl	abeled		Positioned V	Vrong	_
	Inspection	n Strip in	Tube		Cut Too Short	Misr	ead		Power Loss/	Surge	Other
	Ripples in	n Bend			Drill Holes	Offs	et				
	Torque W	Vaves in E	xtrusio	n [	Drawing	Out	of Calibration				-
	Turning Sequence Finish				Finish	Out	of Sequence				
	Wave/Twist in Tube				Folio	Outs	side Dimensions				

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Page 1

Work Order ID:

109710

Parent Item:

D3022-1

Parent Item Name:

Seat Pan

Start Date: 11/26/2013

Required Date: 12/4/2013

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP C02.01.23Revised NG

IPP Rev:D 08-04-16 now water jet DD verified by:EC

IPP Rev:E 08-12-18 as per ECN08-582 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty		Date Issued	Status
M2024T3S.032 2024-T3 .032 sheet	•	Purchased	No			100	sf	500.4612	1.6232	<b>2</b>	Se		3.11.27
				<b>Location</b>		Loc Qty	Lo	c Code					,
				MAT022		500.4612							
				1182		32.3562				<del></del>			

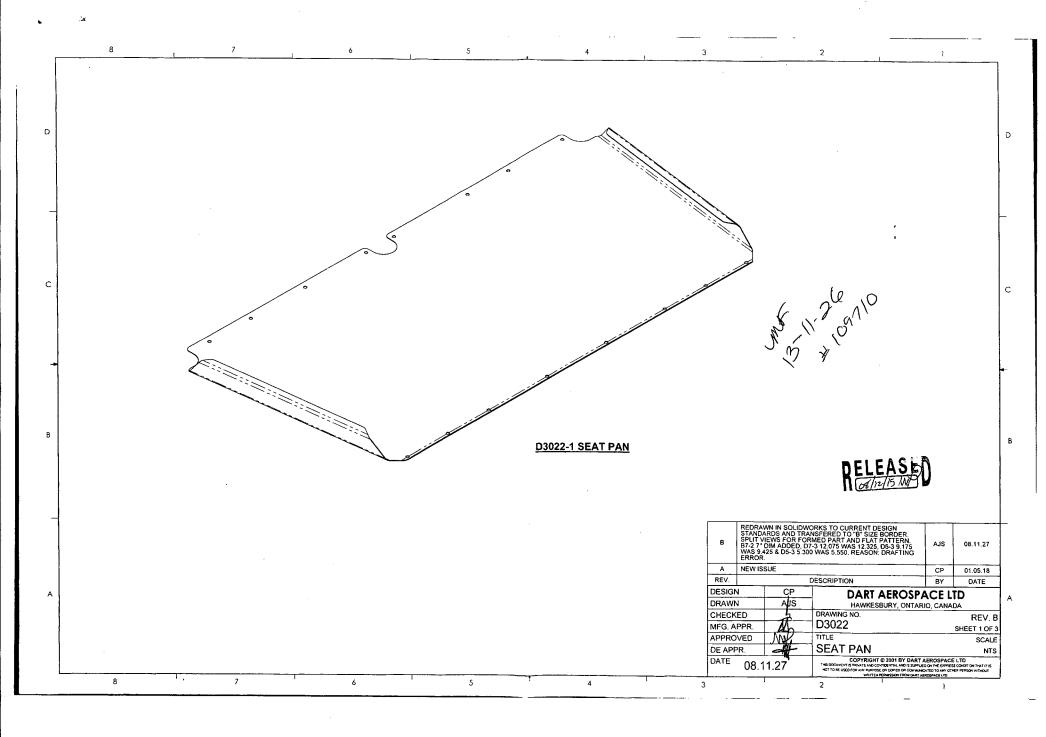
124987-

												DQA:	Date	e: .	
NCR: Y	'es	/ No					WORK ORDER NON-C	100	VFORM	MANCE / UPI	DATE	QA Closed:	Date	e:_	
Nork Orde	er:						DISPOSITION				EPARTMENT	/PROCESS			
	Part No						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstub  Machining Small Fa  Thermoforming Finishir  Large Fab Composit			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other
Root Cause		Date	Step	Qty	Desc	•	tion of work order update	1	nitial ief Eng	Act Descr	ion iption	Sign & Date	Verification	$\Box$	QC Inspector
oc/Data quip/Tooling perator flaterial etup other rocess upplier raining															·
	•		<u> </u>	<b>.</b>			F	AUL	T CATE	GORY					
Landi	ng G	ear					General		_				_		
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence						Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing			Grain  Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset Out of Calibration			tolerance ct issing Vrong 'Surge		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Turning Sequence						Finish		Out of S	Sequence					

Outside Dimensions

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Wave/Twist in Tube



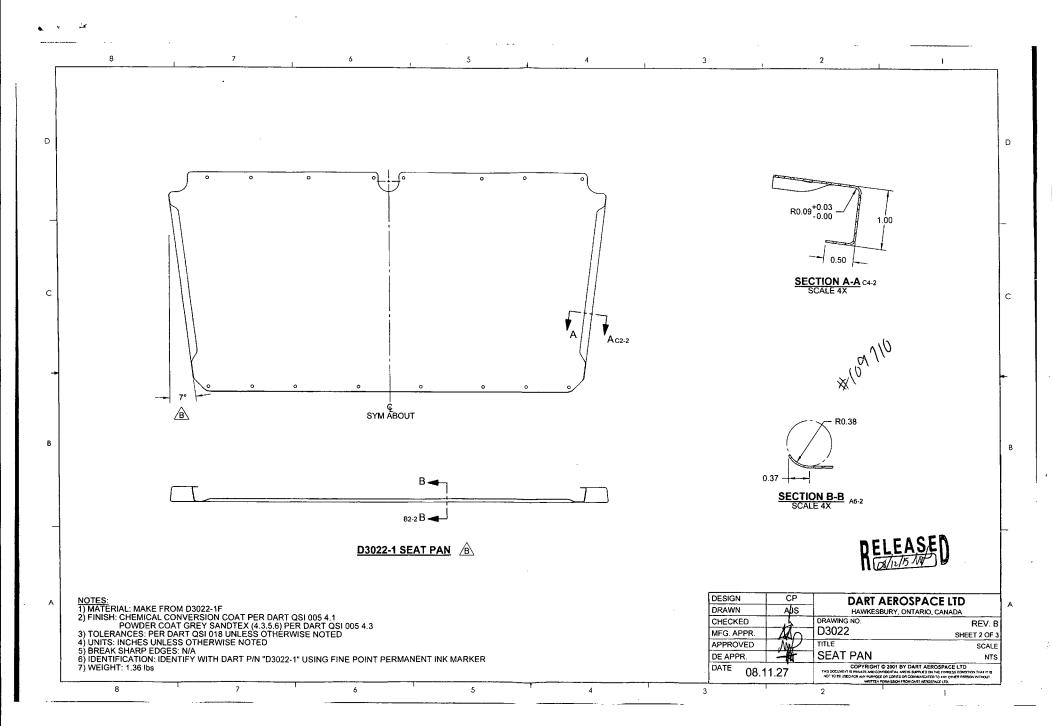
43, -

NCR:	Yes	/	No

DQA: \_\_\_\_\_ Date: \_\_\_\_

NCR: Y	es	/ No				WORK ORDER NON	I-COI	4FOKI	MANCE / UPL	DATE	QA Closed:	Date	<b>:</b> :
Work Orde	r·					DISPOSITION				AGAINST DI	PARTMENT	/PROCESS	*(
Part N						Rework Scrap		ľ	Skid-tube Machining	Crosstube Small Fab		Water Jet d. Eng. Coor.	Engineering Quality
NCR No.				Use-as-is Work Order Update	Use-as-is Work Order Update		noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other		
Root					Descr	ription of work order update	·	nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	QC Inspector
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[		Centre No	ot Concer	ntric to (	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorred	ct	Weld
		Crushed/0	Crimped			Burrs		Instruct	ions Incomplete/U	Inclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
	Heat Treat Countersink					Mislabe	eled		Positioned V	Vrong _			
	Inspection Strip in Tube Cut Too Short					Misread	i		Power Loss/	Surge	Other		
Ripples in Bend Drill Holes					Offset		_						
		Torque W	aves in E	xtrusio	n [	Drawing		Out of 0	Calibration				
		Turning Se	equence			Finish		Out of Sequence					
Wave/Twist in Tube Folio					Folio		Outside	Dimensions					

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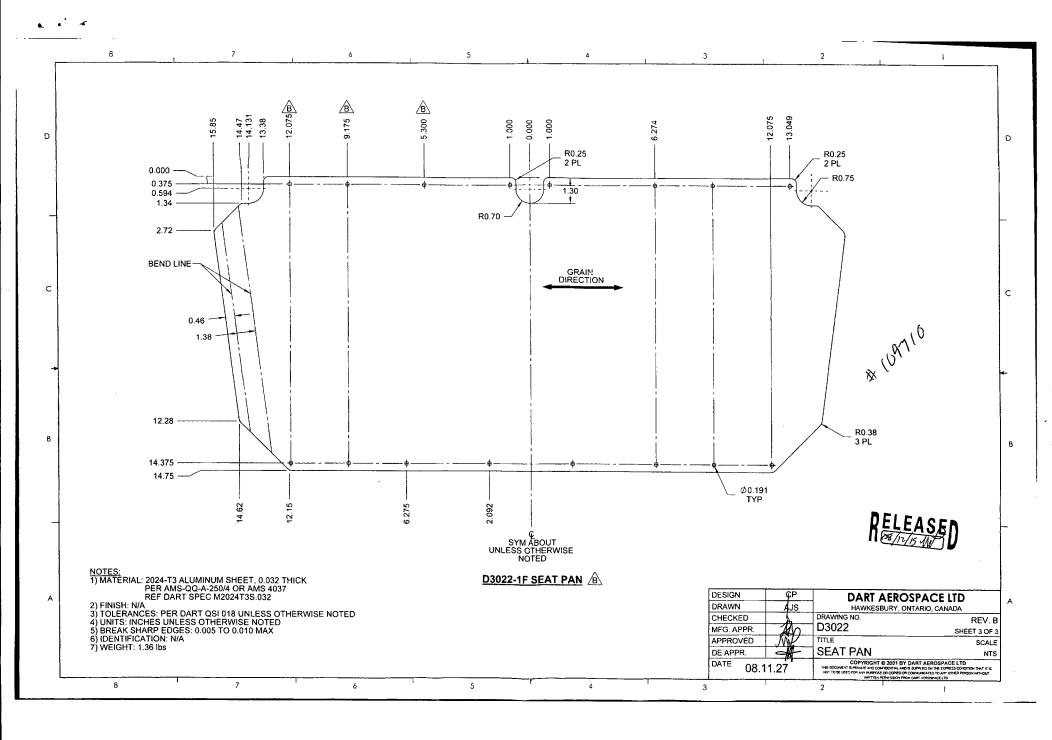


											DQA:	Date	e:
NCR: Y	'es	/ No				WORK ORDER NON-	COI	VFORM	AANCE / UP	DATE	OA Classed	Date	
						1					QA Closed:	Date	2: -
Nork Orde	er:					DISPOSITION	:			AGAINST D	<b>EPARTMENT</b>	/PROCESS	
Part N	•				<del></del>	Rework Scrap	7	Skid-tube Crosstub  Machining Small Fa			Pro	Water Jet d. Eng. Coor.	Engineering Quality
raitiv	٠٠.				·	Use-as-is	-		noforming	Finishing	_	re/Packaging	Other
NCR N	lo.					Work Order Update			Large Fab	Composite		Supplier	
Root					Descr	iption of work order update		nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		or Non-conformance		ief Eng		iption	Date	Verification	QC Inspector
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Landi	ng (	1				General	_	3		_	_	_	_
		Bending			<u> </u>	Bend	<u> </u>	Grain		_	Ovalized	-	Pressure/Forced
	<u> </u>	Centre Not Concentric to O/S			o/s  _	BOM/Route	<u> </u>	Hardwa		L	Over/Under	-	Temperature/Cure
		Cracks			<u> </u>	Broken/Damaged	<u> </u>	4 '	ion Incomplete	<u> </u> _	Part Incorre	<b>⊢</b>	Weld
		Crushed/Crimped			<u> </u>	Burrs	<u> </u>	4	ions Incomplete/L	Jnclear	Part Lost/M	issing	Wrong Stock Pulled
	_	Cuffs				Contamination	_	Mainte		-	Part Moved		
	<u> </u>	Heat Trea			<u> </u>	Countersink	<u> </u>	Mislabe		<u> </u>	Positioned V		ا ا
	lacksquare	Inspectio		Tube	_	Cut Too Short	$\vdash$	Misread	ı	L	Power Loss/	Surge	Other
	<u> </u>	Ripples in			L	Drill Holes	-	Offset					
	⊢	Torque W			n	Drawing	-	4	Calibration		•		
	Turning Sequence Finish				Finish	- 1	Out of 9	Sequence					

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube



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DQA:D	ate:

NCR: Yes / No

### **WORK ORDER NON-CONFORMANCE / UPDATE**

										QA Closed:	Date	<u> </u>		
Work Orde	r:	DISPOSITION					AGAINST DEPARTMENT/PROCESS							
	Part No.				Rework Scrap	<del>}                                   </del>			<b></b>	Pro	Water Jet	Engineering Quality		
NCR No.			Use-as-is Work Order Update	]   TI	Thermoforming Finishin  Large Fab Composite			Rec/Sto	Other					
Root				Descri	ption of work order update	Initi	ial	Ad	ction	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Desc	cription	Date	Verification	QC Inspector		
Doc/Data														
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	Bending				Bend	∐Gr	ain			Ovalized		Pressure/Forced		
	Centre Not Concentric to O/S			o/s	BOM/Route	На	rdwai	re		Over/Under	tolerance	Temperature/Cure		
Ĺ	Cracks			<u></u>	Broken/Damaged	Ins	pecti	on Incomplete		Part Incorre	ct	Weld		
	Crushed/Crimped				Burrs	lns	structi	ions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled		
	Cuffs				Contamination	М	ainte	nance		Part Moved				
	Heat Trea	at			Countersink	Шмі	islabe	led		Positioned \	Wrong	<b>-</b>		
	Inspectio	n Strip in	Tube		Cut Too Short	Мі	isread	l		Power Loss/	/Surge	Other		
	Ripples in	n Bend			Drill Holes		fset							
	Torque V	Vaves in I	Extrusio	n [	Drawing	Ou	it of C	Calibration						
	Turning S	Sequence	!		Finish	Ou	ıt of S	equence						

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

DART AEROSPACE LTD	Work Order:	109710
Description: Seat Pan	Part Number:	D3022-1
Inspection Dwg: D3022 Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
14.75	+/-0.030	14,75	-		7	JKm-06
12.28	+/-0.030	12.28			Τ	
2.72	+/-0.030	2.72	_		T	
14.62	+/-0.030	14.62	_		T	
12.15	+/-0.030	12.15			T	
		74 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			,	

Measured by: Ac	Audited by:	SIMB	Preliminary Approval:	
Date: /3 /11 27	Date:	13/127	Date:	$\exists$

Rev	Date	Change	Revised by	Approved
_ A	08.06.13	New Issue	KJ/DD IN	11
В	11.06.21	Dwg Rev updated	KJ KJ	
			- ()	

										DQA:	Date	):
NCR: Y	es / I	No			WORK ORDER NON-	COI	NFOR	MANCE / UPDATE				
										QA Closed:	Date	2:
Work Orde	nr:				DISPOSITION			AGAINST	DE	PARTMENT	PROCESS	
WOIK OIGE	٠٠. <u> </u>				Rework	٦		Skid-tube Crosstube	,	1	Water Jet	Engineering
Part N	No.				Scrap	1		Machining Small Fab	<b>—</b>	Pro	d. Eng. Coor.	Quality
••					Use-as-is	1	Thern	noforming Finishing	<u> </u>	Rec/Stor	e/Packaging	Other
NCR N	No				Work Order Update	]		Large Fab Composite	<u>;</u>	]	Supplier	
		<del></del>		<b>,</b>		_						<u> </u>
Root				1	ption of work order update	1	Initial	Action		Sign &		
Cause	Da	te Step	Qty		or Non-conformance	Cr	nief Eng	Description		Date	Verification	QC Inspector
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Material	Ш				÷							
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Process												
Supplier	Ш					Ì						
Training	Ш											
Unapproved						上				,		
					F	AUI	LT CATE	GORY				
Landi	ng Gear			_	General		-		_	•	_	_
	Bend	ling			Bend	L	Grain		L	Ovalized		Pressure/Forced
	Centre Not Concentric to O/S				_BOM/Route		Hardwa	are	L	Over/Under	tolerance	Temperature/Cure
	Crac	ks			Broken/Damaged		Inspect	ion Incomplete	L	Part Incorred	it _	Weld
	Crus	hed/Crimpe	d		Burrs	L	Instruct	ions Incomplete/Unclear	L	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuff	5			Contamination		Mainte	enance		Part Moved		
	Heat	Treat			Countersink		Mislabe	eled		Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

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